

CLAIMS

What is claimed is:

1. A method of controlling a cryopump, the method comprising:
 - 5 setting an identifier when a temperature is below an operational set point; and if an identifier has been set, responding to a temperature that is above a warmup set point by directing a purge valve to open.
- 10 2. A method of controlling a cryopump as in Claim 1 wherein directing a purge valve to open includes at least one of:
 - causing a cryo-purge valve coupled to the cryopump to open; and causing an exhaust purge valve coupled to an exhaust line of the cryopump to open.
- 15 3. A method of controlling a cryopump as in Claim 1 wherein the operational set point is 18K.
4. A method of controlling a cryopump as in Claim 1 wherein the warmup set point is above 34K.
- 20 5. A method of controlling a cryopump as in Claim 1 wherein causing a purge valve to comprises delivering purge gas into the cryopump without initiating an entire regeneration process.
6. A cryopump controller which is programed with instructions for:
 - setting an identifier when a temperature is below an operational set point; and

if an identifier has been set, responding to a temperature that is above a warmup set point by directing a purge valve to open.

7. A cryopump controller as in Claim 6 wherein the instructions for directing a purge valve to open include instructions for at least one of:
 - 5 causing a cryo-purge valve coupled to the cryopump to open; and
 - causing an exhaust purge valve coupled to an exhaust line of the cryopump to open.
8. A cryopump controller as in Claim 6 wherein the operational set point is 18K.
- 10 9. A cryopump controller as in Claim 6 wherein the warmup set point is above 34K.
- 10 11. A cryopump controller as in Claim 6 wherein directing a purge valve to open comprises delivering purge gas into the cryopump without initiating an entire regeneration process.
- 15 11. A cryopump comprising:
 - a controller in communication with the cryopump, the controller including instructions for:
 - setting an identifier when a temperature is below an operational set point; and
 - 20 if an identifier has been set, responding to a temperature that is above a warmup set point by directing a purge valve to open.
12. A cryopump as in Claim 11 wherein the instructions for directing a purge valve to open include instructions for at least one of:
 - 25 causing a cryo-purge valve coupled to the cryopump to open; and

causing an exhaust purge valve coupled to an exhaust line of the cryopump to open.

13. A cryopump as in Claim 11 wherein the operational set point is 18K.
14. A cryopump as in Claim 11 wherein the warmup set point is above 34K.
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15. A cryopump as in Claim 11 wherein directing a purge valve to open comprises delivering purge gas into the cryopump without entering into an entire regeneration process.
- 10 16. A system for controlling a cryopump, the system comprising:
 - a means for setting an identifier when a temperature is below an operational set point; and
 - a means for responding to a temperature that is above a warmup set point by directing a purge valve to open when an identifier has been set.